

This small and tender but exceedingly beautiful species is generally more or less abraded, but when perfect is easily recognized by the sculpture, which consists of distant, extremely slender riblets, each of which consists of, or is surmounted by, a series of minute granules. A rare variety is striped like the young of *A. pelta* (*A. strigillata*, Nutt.); but in general it is more or less mottled, sometimes delicately pencilled, like *A. fascicularis*, Menke, from the Gulf of California.

ACMÆA SUBUNDULATA, Angas.

A. t. parva, tenui, ovali, altiore; extus colore pallide fusco-corneo, fusco varie maculata seu strigata, liris radiantibus obsoletis vix undata; striis incrementi confertissimis; vertice haud adunco, plus minusve antico, ad trientem seu ad duas inter quinque partes longitudinis sito; intus fuscescente, fusco-nigro varie maculata seu strigata, nitida; spathula plerumque tenebrosa; margine haud conspicuo.

Long. .52, lat. .4, alt. .22 poll.

Hab. Port Lincoln, Hobson's Bay (*Archer*).

Var. t. intus pallidior, strigis radiantibus angustis.

7. ON THE MARINE MOLLUSCAN FAUNA OF THE PROVINCE OF SOUTH AUSTRALIA: WITH A LIST OF ALL THE SPECIES KNOWN UP TO THE PRESENT TIME; TOGETHER WITH REMARKS ON THEIR HABITATS AND DISTRIBUTION, ETC. BY GEORGE FRENCH ANGAS, C.M.Z.S.

Having paid considerable attention to the marine conchology of South Australia during a residence of some years in that province, and possessing in my own collection examples of nearly every species enumerated in the following list, I have endeavoured to work up my materials, however imperfect, into a list of species *bonâ fide* inhabitants of that portion of Australia*. As so many of the earlier authors have described shells, giving either an unknown habitat or a wrong locality, it is of importance that those who, from personal observation, are in a position to do so, should give to the scientific world the benefit of their researches, especially when they are able to correct errors and add to our knowledge of the geographical distribution of species.

The province, or colony, of South Australia, properly so called, includes all that indented coast-line extending from the mouth of the Glenelg, near Cape Northumberland, on the south-east, to the head of the Great Australian Bight on the north-west, ranging from 129° to 141° of longitude east from Greenwich, and occupying a belt of latitude between 32° and 38° S. This extent of coast includes the two deep gulfs of Spencer and St. Vincent, Kangaroo

* Those species marked with an asterisk (*) are recent additions to science, and are described from the type specimens in my collection.—G. F. A.

Island, Port Lincoln, and Encounter Bay, and presents every diversity of shore, from bold rocky headlands to sandy flats and muddy estuaries. Within this area there have been collected already upwards of 230 species of univalves and about 100 species of bivalves, all of which are now described; but, doubtless, when the dredge has been more generally used, and the coasts better explored, these numbers will be greatly increased.

Sixty-five of the species enumerated in the following list were unknown to science until described from my specimens, during the last eighteen months, by Messrs. H. & A. Adams, H. Crosse, myself, and others; to these will be added somewhere about a dozen new species of bivalves, in the second part of this paper.

The coasts of South Australia are particularly rich in *Trochidæ*, of which family no less than fifty species are included in this list. No large species of *Terebra* have as yet been found, and only one of the subgenus *Euryta*. According to our present knowledge, the genera *Dolium*, *Strombus*, *Solarium*, *Trichotropis*, *Struthiolaria*, *Orulum*, *Aporrhais*, *Terebellum*, and *Dentalium* do not appear to be represented at all; while we have numerous species of the following genera, viz. *Voluta*, *Columbella*, *Fusus*, *Cominella*, *Triton*, *Haliotis*, *Fissurella*, and *Chiton*. Amongst the *Chitonidæ* is a new form—*Stenochiton* (Ad. & Ang.). There are four species of *Scalaria*, three of *Conus*, five of *Cypræa*, and only one *Oliva*. The *Pleurotomidæ* are pretty numerous; and many others will probably be discovered when dredging has been better attended to, as this family belongs more especially to deep water. Of the genus *Siphonaria* there are four or five species.

Amongst the bivalves, the truly Australian genera *Myadora* and *Chamostrea* yield one species each. The *Veneridæ* are tolerably abundant, including the lovely *V. lamellata*. So are the *Mactridæ* and *Tellinidæ*, of which there are several species inhabiting the sandy shores of the gulfs and Encounter Bay, amongst which the handsome *Tellina albinella* is the most conspicuous and abundant. *Pecten bifrons*, *Solemya australis*, *Sunetta alicia*, and *Crassatella castanea* are all interesting South-Australian species. No examples of the genus *Trigonia* have yet been met with. Both the edible and pearl oysters occur plentifully near Port Lincoln; and the *Pinna* abounds on the sandy and muddy flats at the heads of the gulfs.

CEPHALOPODA.

Fam. ARGONAUTIDÆ.

1. ARGONAUTA ORYZATA.

Argonauta oryzata, Meuschen, Mus. Gevers. 252. n. 133.

A. tuberculata, Shaw, Nat. Misc. xxiii. t. 995.

A. tuberculosa, Lam. Anim. sans Vert. vii. 632, pl. 2.

A. nodosa, Solander, MS., Portland Cat. 76. 2120. 17.

Hab. Spencer's Gulf and Kangaroo Island.

At certain seasons of the year, during the prevalence of strong

northerly winds, the shells of the female Argonaut are washed on shore in considerable numbers at Thistle Island, near the entrance of Spencer's Gulf. Many of these shells contain the animal in a living state; but they soon fall a prey to the Seagulls, by whom they are greedily devoured.

Fam. AMMONIIDÆ.

2. AMMONIA LEVIS.

Lituus levis, Gray, Cat. Moll. Brit. Mus. (Cephalopoda), part 1, p. 116.

Hab. Pelagic, throughout the Southern Seas.

This species, in regard to the shell, appears to resemble very strongly that commonly known as the *Spirula peroni* of Lamarck.

At Encounter Bay, and on the exposed sandy beaches between it and Cape Northumberland, the dead shells are frequently washed on shore.

In the South Pacific Ocean the *Spirulæ* exist in great abundance. On the smooth black sands along the west coast of New Zealand their shells lie scattered in infinite numbers; and after an easterly gale they are almost as frequent on many parts of the New South Wales coast.

On one occasion only I had the good fortune to meet with the perfect animal enclosing the shell; it was thrown up, after a severe storm, on Bondi Beach, near Port Jackson, and it is now preserved in alcohol in the Sydney Museum.

GASTEROPODA.

Fam. MURICIDÆ.

3. MUREX (PTERONOTUS) TRIFORMIS.

Murex triformis, Reeve, Conch. Icon. pl. 13. f. 53.

M. acanthopterus, var., Sowerby, Conch. Illustr. f. 51.

Station. On oyster-banks, from 2 to 10 fathoms.

Hab. Port Lincoln, Spencer's Gulf.

This fine species varies considerably both in form and colour; the prevailing hue is of a purplish black, but examples sometimes occur where the entire shell is of a cream-colour, with the varix of the outer lip beautifully laminately frilled. It occurs also at King George's Sound.

4. MUREX SEROTINUS.

Murex serotinus, A. Adams, Proc. Zool. Soc. 1851, p. 268.

Station. Amongst rocks, at low water of spring tides.

Hab. Aldinga Bay, St. Vincent's Gulf.

But one specimen was obtained, alive, at the above locality.

5. MUREX SCALARIS.

Murex scalaris, A. Adams, Proc. Zool. Soc. 1853, p. 71.

Station. Dredged, along with horny zoophytes and nullipores, at a depth of 7 or 8 fathoms.

Hab. St. Vincent's Gulf.

This rare species bears a resemblance to *M. cristatus*, Brod., from the Adriatic. It was described by Mr. Adams from a specimen in the Cumingian collection, obtained at Moreton Bay by the late Mr. Strange.

6. MUREX PUMILUS.

Murex pumilus, A. Adams, Proc. Zool. Soc. 1853, p. 70.

Station. Unknown.

Hab. St. Vincent's Gulf.

Two specimens were found of this minute species, washed on shore on the eastern side of St. Vincent's Gulf.

This species was obtained by Mr. A. Adams in the China Seas.

7. *TYPHIS YATESI.

Typhis yatesi, Crosse, Journ. de Conch. 1865, p. 54, pl. 2. f. 3.

Station. Unknown.

Hab. St. Vincent's Gulf.

Only a single example of this beautiful addition to the limited genus *Typhis* has hitherto been obtained. I found it on the beach near Holdfast Bay. It probably inhabits deep water.

8. *TROPHON PAIVÆ.

Trophon paivæ, Crosse, Journ. de Conch. 1864, p. 278, pl. 11. f. 7.

Station. Under stones, at low water of spring tides.

Hab. Yorke's peninsula.

9. FUSUS CREBRILIRATUS.

Fusus crebriliratus, Reeve, Conch. Icon. pl. 5. f. 20.

Station. On sandy bottoms, amongst *Zostera*, 2 to 5 fathoms.

Hab. St. Vincent's and Spencer's Gulfs. Common.

10. FUSUS PYRULATUS.

Fusus pyrulatus, Reeve, Conch. Icon. pl. 13. f. 50.

Station. Deep water.

Hab. Spencer's Gulf. Rare.

This species is also found in Tasmania.

11. FUSUS USTULATUS.

Fusus ustulatus, Reeve, Conch. Icon. pl. 17. f. 66.

Station. Deep water.

Hab. St. Vincent's Gulf. Rare.

12. FUSUS MARMORATUS, var.

Fusus marmoratus, Phil. Abbild. und Besch. Conch. Fusus, pl. 3. f. 7.

Station. Deep water.

Hab. Lincoln.

This species, of which a single specimen was dredged at Port Lincoln, appears to be a variety of *F. marmoratus* of Philippi.

13. *FUSUS* (*NEPTUNEA*) *DILATATUS*.

Fusus dilatatus, Quoy, Voy. de l'Astr. ii. p. 498, pl. 34. f. 15-17.

F. adustus, Phil.

Station. Deep water.

Hab. Encounter Bay.

This fine species is one of rare occurrence in South Australia.

14. **FUSUS* (*NEPTUNEA*) *TASMANIENSIS*.

Fusus tasmaniensis, Ad. & Ang. Proc. Zool. Soc. 1863, p. 421, pl. xxxvii. f. 1.

Station. Deep water.

Hab. Hardwick Bay, Spencer's Gulf.

Mr. Cuming possesses this species from Tasmania. The specimens from Spencer's Gulf are smaller in size, and of a yellowish orange-colour, banded with chestnut.

15. **FUSUS* (*TRITONIDEA*?) *LINCOLNENSIS*.

Fusus lincolnsensis, Crosse, Journ. de Conch. 1865, p. 53, pl. 2. f. 4.

Station. Dredged from an oyster-bank, 6 fathoms.

Hab. Port Lincoln, Spencer's Gulf.

15 a. **SIPHONALIA* *FUSCOZONATA*.

Siphonalia fuscozonata, Angas, Proc. Zool. Soc. 1865.

Station. Deep water.

Hab. St. Vincent's Gulf.

This shell resembles *Peristernia*, but without the distinct fold of that genus.

Fam. *PLEUROTOMIDÆ*.

16. *DRILLIA* (*CRASSISPIRA*) *HARPULARIA*.

Pleurotoma harpularia, Des Moulins; Reeve, Conch. Icon. pl. 15. f. 124.

P. harpula, Valenc.

Station. Deep water.

Hab. Found washed up on the beaches, at Salt Creek, St. Vincent's Gulf.

17. **BELA* *AUSTRALIS*.

Bela australis, Ad. & Ang. Proc. Zool. Soc. 1863, p. 420.

Station. Deep water.

Hab. Aldinga and Rapid Bays.

18. *CLATHURELLA* *SPURCA*.

Clathurella spurca, Hinds, Moll. Voy. Sulphur, pl. 5. f. 14.

Station. Dredged in deep water.

Hab. St. Vincent's Gulf.

This species occurs also in the Philippines (*Cuming*)

19. *CLATHURELLA LALLEMANTIANA.

Pleurotoma lallemantiana, Crosse, Journ. de Conch. 1865.

Station. Deep water.

Hab. St. Vincent's Gulf.

20. *CYTHARA COMPTA.

Cythara compta, Ad. & Ang. Proc. Zool. Soc. 1863, p. 419, pl. xxxvii. f. 5.

Station. Deep water.

Hab. Rapid Bay, St. Vincent's Gulf.

A single specimen of this species was dredged by me in Port Jackson, New South Wales.

21. *CYTHARA BELLA.

Cythara bella, Ad. & Ang. Proc. Zool. Soc. 1863, p. 419, pl. xxxvii. f. 6.

Station. Deep water.

Hab. Rapid Bay, St. Vincent's Gulf.

Two examples only of this delicately tinted shell have been met with.

22. MANGELIA PURA.

Mangelia pura, Reeve, Conch. Icon. f. 63.

Station. Deep water.

Hab. Aldinga Bay, St. Vincent's Gulf.

Mr. Reeve gives no locality with his description of this species.

23. *MANGELIA INSCULPTA.

Mangelia insculpta, Ad. & Ang. Proc. Zool. Soc. 1863, p. 420, pl. xxxvii. f. 8.

Station. Deep water.

Hab. St. Vincent's Gulf.

24. MANGELIA CAVERNOSA.

Mangelia cavernosa, Reeve, Conch. Icon. pl. 2. f. 8.

Station. Deep water.

Hab. St. Vincent's Gulf.

This species occurs also in the Philippines (*Cuming*).

25. MANGELIA LINEATA.

Mangelia lineata, Reeve, Conch. Icon. pl. 6. f. 42.

Station. Deep water.

Hab. St. Vincent's Gulf.

Reeve's description has no locality.

26. *MANGELIA VINCENTINA.

Pleurotoma (Mangelia) vincentina, Crosse, Journ. de Conch. 1865.

Station. Deep water.

Hab. Rapid Bay, St. Vincent's Gulf.

Fam. TRITONIDÆ.

27. TRITON BARTHELEMYI.

Triton barthelemyi, Bernardi, Journ. de Conch. 1857, p. 55, pl. 1. f. 1.

Station. Amongst rocks at low tides.

Hab. Cape Northumberland; Gipps Land, Victoria.

This large species bears considerable affinity to *T. spengleri*, Lam., from New South Wales; they differ, however, in the form of the aperture, in the number and character of the transverse ribs, and in the shape and sculpture of the upper whorls.

28. TRITON SUBDISTORTUS.

Triton subdistortum, Lam. Anim. sans Vert. (Deshayes's edit.) ix. p. 638.

Station. Amongst rocks at extreme low tides.

Hab. Port Elliot, South Australia.

This species appears to range from King George's Sound to Tasmania. It is not found on the coast of New South Wales north of Cape Howe.

29. *TRITON WATERHOUSEI.

Triton waterhousei, Ad. & Ang. Proc. Zool. Soc. 1864, p. 35.

Station. Dredged on an oyster-bank.

Hab. Port Lincoln, and Encounter Bay.

This shell differs from *T. spengleri* in the squamato-pilose epidermis, in the broad flattened varix of the outer lip, and in the double liræ of the whorls.

30. TRITON (SIMPULUM) QUOYI.

Triton quoyi, Reeve, Conch. Icon. pl. 19. f. 93.

Station. From 1 to 3 fathoms, on sandy shores, amongst the *Zostera*, or grass-wrack, so common in the gulfs beyond tide-marks.

Hab. St. Vincent's and Spencer's Gulfs.

I have received a large variety of this species from Tasmania.

Fam. BUCCINIDÆ.

No typical form of *Buccinum* has, as yet, been found on the South-Australian coast. The species known all belong to the genus *Cominella* of Gray, included under the subfamily *Nassinæ*.

31. COMINELLA COSTATA.

Buccinum costatum, Quoy et Gaim. Voy. de l'Astrol. Zool. ii. p. 417, pl. 30. f. 17-20.

Station. Crawling on the sands at low spring tides.

Hab. St. Vincent's and Spencer's Gulfs.

This shell, in a young state, is very variable in colour. *B. acutinosum*, Reeve, a closely allied species to *B. costatum*, does not appear to me to belong to the South-Australian fauna; it is probably from the west coast of New Holland.

PROC. Zool. Soc.—1865, No. XI.

32. *COMINELLA ALVEOLATA*.

Buccinum alveolatum, Kiener, Icon. Coq. Viv. p. 32, pl. 10. f. 34.

Station. Under stones at low water.

Hab. Yorke's Peninsula. Abundant.

This species ranges from Port Lincoln, through Bass's Straits, to Tasmania, in all of which localities it occurs plentifully wherever the conditions of the coast suit its station. The shells vary considerably both in colour and markings.

33. **COMINELLA ANGASI*.

Buccinum angasi, Crosse, Journ. de Conch. 1864, p. 275, pl. 11. f. 5.

Station. Probably deep water.

Hab. St. Vincent's Gulf.

34. **COMINELLA ADELAIDENSIS*.

Buccinum adelaidense, Crosse, Journ. de Conch. 1864, p. 276, pl. 11. f. 6.

Station. At the roots of mangroves in the mud.

Hab. Port Adelaide Creek, South Australia.

There are two varieties of this species—one of a dark brown, and the other of a pale fawn-colour.

35. *COMINELLA SUTURALIS*.

Cominella suturalis, A. Adams.

Station. Probably deep water.

Hab. St. Vincent's Gulf.

This pretty species ranges to the westward as far as King George's Sound.

36. *COMINELLA EBURNEA*, var.

Buccinum eburneum, Reeve, Conch. Icon. pl. 12. f. 93.

Station. Probably deep water.

Hab. St. Vincent's Gulf, &c.

37. **COMINELLA FILICEA*.

Buccinum filiceum, Crosse et Fischer, Journ. de Conch. 1864, p. 346, pl. 3. f. 15, 16.

Station. Under rocks and stones at low tide.

Hab. East side of Yorke's Peninsula.

I have only met with one living example of this species in South Australia. It occurs also in Sydney Harbour (Port Jackson), where I have taken at least a dozen specimens by turning over the stones at extreme spring tides.

38. *NASSA (PHRONTIS) FASCIATA*.

Nassa fasciata, Desh. Anim. sans Vert. x. p. 172.

Buccinum fasciatum, Lam.

Station. On the edge of the Laminarian zone, creeping upon the sand, and amongst the grass-wrack, in great numbers.

Hab. St. Vincent's and Spencer's Gulfs, &c.

39. **NASSA* (PHRONTIS) MUNIERIANA.

Nassa munieriana, Crosse, Journ. de Conch. 1864, p. 345, pl. 13.
f. 6.

Station. Amongst the grass-wrack.

Hab. St. Vincent's and Spencer's Gulfs. Rare.

40. *NASSA* (NIOtha) PAUPERATA.

Nassa pauperata, Lam. Anim. sans Vert. x. p. 183.

Station. Abundant in company with *N. fasciata*.

Hab. St. Vincent's and Spencer's Gulfs, &c.

This common species is also found on the coasts of Tasmania. There are two varieties—one all white, the other broadly banded on the whorls with chestnut-brown.

41. **NASSA* (HIMA) COMPACTA.

Nassa compacta, Angas, Proc. Zool. Soc. 1865, p. 154.

Station. On sandy mud, low water.

Hab. St. Vincent's Gulf.

A small species, somewhat resembling the British *Nassa incrasata*, Müll.

42. **PURPURA* FLINDERSI.

Purpura flindersi, Ad. & Ang. Proc. Zool. Soc. 1863, p. 421,
pl. XXXVII. f. 22.

Station. Under loose fragments of rock at low tides.

Hab. Salt Creek and Wool Bay, east coast of Yorke's Peninsula.

This curious cancellated *Trophon*-like species has hitherto only been met with on Yorke's Peninsula.

43. *PURPURA* (POLYTROPA) TEXTILIOSA.

Purpura textiliosa, Lam. Anim. sans Vert. x. p. 77.

Station. Amongst rocks at low water.

Hab. Aldinga Bay; Yorke's Peninsula; Kangaroo Island.

Allied to *P. ægrota* of Reeve, from Swan River.

44. **PURPURA* (STRAMONITA) HUMILIS.

Purpura humilis, Crosse, Journ. de Conch. 1865, p. 51, pl. 2. f. 2.

Station. Deep water.

Hab. St. Vincent's Gulf.

45. **RICINULA* (SISTRUM) ADELAIDENSIS.

Purpura adelaidensis, Crosse, Journ. de Conch. 1865, p. 50, pl. 2.
f. 1.

Station. On rocks at low water.

Hab. Holdfast Bay; Aldinga Bay; Rapid Bay.

46. **ADAMSIA* ADELAIDÆ.

Adamsia adelaidæ, Ad. & Ang. Proc. Zool. Soc. 1863, p. 421.
pl. XXXVII. f. 2.

Station. Unknown.

Hab. St. Vincent's Gulf.

The only other known species of *Adamsia* is *A. typica*, Dunker, which is from the coast of New South Wales.

Fam. DACTYLIDÆ.

47. OLIVA AUSTRALIS.

Oliva australis, Duclos, Mon. Oliv. pl. 8. f. 3, 4.

Station. On sandy bottom, 5 to 10 fathoms.

Hab. St. Vincent's Gulf.

This species, the only representative of the genus in South Australia, occurs also at King George's Sound and Swan River.

Fam. FASCIOLARIIDÆ.

48. FASCIOLARIA FUSIFORMIS.

Fasciolaria fusiformis, Valenc.; Kiener, Icon. Coq. Viv. p. 13, pl. 4. f. 2.

Station. On sandy bottoms, amongst the grass-wrack, 2 to 5 fathoms.

Hab. Spencer's and St. Vincent's Gulfs.

This large species varies considerably in size and form. Some specimens are slightly coronated at the upper part of the whorls; and the live shells are covered with a uniform olive-brown epidermis. Specimens containing the animal are frequently washed on shore near the "semaphore" at Port Adelaide.

49. FASCIOLARIA CORONATA.

Fasciolaria coronata, Lam. Anim. sans Vert. ix. p. 435.

Station. Deep water.

Hab. Port Elliot; Encounter Bay; Guichen Bay.

This species, like the *F. fusiformis*, is very variable in its growth. Mr. Reeve's figures (14 *c* and 14 *d*, in plate 6 of the Conch. Iconica) represent the South-Australian form of the species very faithfully; but the shell from the Philippine Islands, given under the same name (figs. 14 *a* and 14 *b*), appears to be another species.

Fam. VOLUTIDÆ.

50. LYRIA LYRIFORMIS.

Voluta lyræformis, Brod. Zool. Journ. iii. 83, t. 3. f. 3.

Harpula lyræformis, Swains. Malac. 318.

Station. On banks of sandy mud, 2 to 5 fathoms.

Hab. St. Vincent's Gulf; Port Lincoln; Kangaroo Island.

The Port Lincoln specimens are smaller and less richly coloured than those from St. Vincent's Gulf.

51. VOLUTELLA PAPILLOSA.

Voluta papillosa, Swains.; Bligh, Cat.; Sow. Thes. Conch. p. 207, t. 48. f. 30.

Station. Deep water.

Hab. Kangaroo Island; Encounter Bay.

This rare and ponderous species occurs also in Tasmania.

52. *VOLUTELLA FULGETRUM.*

Voluta fulgetrum, Sow. Tank. Cat. no. 2149, t. 4, 5.

Station. On sand-banks from 2 to 10 fathoms.

Hab. Port Lincoln; Encounter Bay.

This fine species varies both in size and markings. The typical specimens are richly painted with broad, irregular, zigzag, chestnut streaks on a flesh-coloured ground; whilst examples frequently occur which are delicately reticulated, with only a few spots here and there round the whorls.

53. **VOLUTA (ALCITHOË) KREUSLERÆ.*

Voluta kreusleræ, Angas, Proc. Zool. Soc. 1865, p. 55.

Station. Deep water.

Hab. South Australia.

This species is an interesting addition to the Australian Volutes. In its general character it somewhat resembles *V. pacifica*, Solander, (belonging to H. & A. Adams's section *Alcithoë*,) from which, however, it differs in the greater length of the spire, in the narrowness of its form, and in having the lower whorl encircled with three bands of orange-brown spots.

54. *AMORIA EXOPTANDA.*

Voluta exoptanda, Sowerby, MS.; Reeve, Conch. Icon. pl. 10. f. 22.

Station. Probably deep water.

Hab. Encounter Bay.

A broken specimen of this extremely rare Volute was found upon the beach near Encounter Bay.

55. *AMORIA UNDULATA.*

Voluta undulata, Lam. Anim. sans Vert. x. p. 401.

Station. On sandy bottoms at extreme low water of spring tides.

Hab. Port Lincoln and Encounter Bay.

This species is rather plentiful at Port Lincoln. It must not, however, be confounded with a Tasmanian species hitherto known also as *V. undulata*, which is now considered to be distinct, and has been lately accorded specific rank by Mr. Sowerby, under the name of *V. angasi*, in the "Completion of the late G. B. Sowerby's Monograph of *Voluta*, in Thesaurus," fig. 99, sp. 73.

MITRIDÆ.

56. *MITRA GLABRA.*

Mitra glabra, Swainson, Exotic Conch. pl. 24.

M. buccinata, Quoy.

Station. Deep water.

Hab. St. Vincent's Gulf; Guichen Bay.

This fine species ranges from Tasmania to Swan River. I possess a specimen from the beach at Holdfast Bay, in St. Vincent's Gulf, that measures nearly 4 inches in length.

57. *MITRA AUSTRALIS*.

Mitra australis, Swains. Zool. Illus. 1st series, pl. 18.

M. melaleuca, Quoy.

Station. Deep water.

Hab. St. Vincent's Gulf; Encounter Bay; Guichen Bay.

This species is of rare occurrence. It is found also in Tasmania.

58. **MITRA ROSETTÆ*.

Mitra rosettæ, Angas, Proc. Zool. Soc. 1865, p. 55.

Station. Deep water.

Hab. Encounter Bay.

59. *COLUMBELLA (MITRELLA) SEMICONVEXA*.

Columbella semiconvexa, Sow. Thes. Conch. pl. 38. f. 103, 104.

Station. Under stones at low water.

Hab. Yorke's Peninsula; Kangaroo Island; Lacépède Bay.

Of this very variable species, a fine large variety, of an orange-red colour, is found at Lacépède Bay.

60. *COLUMBELLA (MITRELLA) AUSTRALIS*.

Columbella australis, Gaskoin, Proc. Zool. Soc. 1851, p. 5.

Station. Under stones at low water.

Hab. Yorke's Peninsula.

61. **COLUMBELLA (MITRELLA) YORKENSIS*.

Columbella yorkensis, Crosse, Journ. de Conch. 1865, pl. 2. f. 6.

Station. Under stones at low water.

Hab. Yorke's Peninsula.

62. **COLUMBELLA (MITRELLA) INFUMATA*.

Columbella infumata, Crosse, Journ. de Conch. 1863, p. 84, pl. 1. f. 3.

Station. Under stones and amongst weed.

Hab. Salt Creek, Yorke's Peninsula.

63. *COLUMBELLA (MITRELLA) MENKEANA*.

Columbella menkeana, Reeve, Conch. Icon.

Station. Beyond tide-marks, amongst *Zostera*.

Hab. St. Vincent's Gulf.

An elegant fusiform species.

64. *COLUMBELLA (MITRELLA) LINCOLNENSIS*.

Columbella lincolnensis, Reeve, Conch. Icon.

Station. Under stones at low water.

Hab. Port Lincoln; Yorke's Peninsula.

65. COLUMBELLA (MITRELLA) DERMESTOIDES.

Buccinum dermestoides, Kiener.

Station. Under stones beyond tide-marks.

Hab. Port Lincoln; also Port Jackson, New South Wales.

66. *COLUMBELLA (MITRELLA?) INTERRUPTA.

Columbella interrupta, Angas, Proc. Zool. Soc. 1865, p. 56.

Station. Dredged in 4 fathoms.

Hab. Yorke's Peninsula.

A beautiful little species, finely pencilled, with two broad, green, scalloped bands.

Fam. ACTÆONIDÆ.

67. *RINGICULA AUSTRALIS.

Ringicula australis, Crosse, Journ. de Conch. 1865, pl. 2. f. 5.

Station. Unknown.

Hab. Head of Spencer's Gulf, in shell-sand.

Fam. NATICIDÆ.

68. NATICA (NEVERITA) CONICA.

Natica conica, Lam. Anim. sans Vert. viii. p. 632.

Station. Crawling on the sands at low-water mark.

Hab. St. Vincent's and Spencer's Gulfs. Common.

69. NATICA (NEVERITA) BACONI.

Natica baconi, Reeve, Conch. Icon. pl. 10. f. 37 *a* & *b*.

Station. On sandy shores exposed to the surf, beyond tide-marks.

Hab. Encounter Bay.

70. RUMA UMBILICATA.

Natica umbilicata, Quoy, Voy. Astrol. ii. p. 224, pl. 66. f. 22, 23.

Station. Creeping on the sands at edge of low-water mark.

Hab. Salt Creek, Yorke's Peninsula.

Found also in Tasmania, where it attains a larger size.

71. NATICINA PICTA.

Naticina picta, Reeve, Conch. Icon.

Station. On sand, deep water.

Hab. Spencer's and St. Vincent's Gulfs.

72. NATICINA NITIDA.

Naticina nitida, Reeve, Conch. Icon.

Station. Deep water.

Hab. Yorke's Peninsula; St. Vincent's Gulf.

This species is also found in the Philippines.

73. CATINUS ZONALIS.

Sigaretus zonalis, Quoy, Voy. de l'Astrol. v. p. 2, pl. 66. f. 1-3.

Station. Half buried on sandy flats below tide-marks.

Hab. Port Lincoln; St. Vincent's Gulf; Encounter Bay.

Fam. CASSIDIDÆ.

74. CASSIS FIMBRIATA.

Cassis fimbriata, Quoy, Voy. de l'Astrol. ii. p. 596, pl. 43. f. 7, 8.

Station. On sandy bottoms in deep water.

Hab. St. Vincent's Gulf.

A fine, large, characteristic species, which is occasionally cast on shore after heavy gales.

75. SEMICASSIS SEMIGRANOSA.

Cassis semigranosa, Lam. Anim. sans Vert. x. p. 37.

Station. Sandy bottoms, deep water.

Hab. Aldinga Bay; Encounter Bay.

Specimens from Tasmania, where it is not uncommon, are of a larger size than those found in South Australia.

76. SEMICASSIS (CASMARIA) PAUCIRUGIS.

Cassis paucirugis, Menke, Moll. Nov. Hollandiæ, p. 23. no. 107.

Station. Deep water.

Hab. Encounter Bay; Guichen Bay.

This species ranges from Swan River to Tasmania.

Fam. SCALIDÆ.

77. SCALA ACULEATA.

Scalaria aculeata, Sow. Proc. Zool. Soc. 1844, p. 12; Thes. Conch. pl. 32. f. 35-37.

Station. Deep water.

Hab. St. Vincent's Gulf.

78. *SCALA DELICATULA.

Scalaria delicatula, Crosse et Fisch. Journ. de Conch. 1864, p. 347, pl. 3. f. 9, 10.

Station. Deep water.

Hab. St. Vincent's Gulf.

79. *SCALA CONSORS.

Scalaria consors, Crosse et Fisch. Journ. de Conch. 1864, p. 347, pl. 3. f. 11, 12.

Station. Deep water.

Hab. St. Vincent's Gulf.

80. SCALA (OPALIA) GRANULOSA.

Turritella granulosa, Quoy.

Scalaria granulosa, Sow. Thes. Conch. p. 104, pl. 35. f. 144.

Station. Deep water.

Hab. Aldinga Bay; Guichen Bay.

Fam. TEREBRIDÆ.

81. *EURYTA PULCHELLA.

Euryta pulchella, Ad. & Ang. Proc. Zool. Soc. 1863, p. 418, pl. xxxvii. f. 14.

Station. Probably deep water.

Hab. Rapid Bay.

Only one example of this pretty little species has hitherto been obtained.

Fam. EULIMIDÆ.

82. *EULIMA AUGUR.

Eulima augur, Angas, Proc. Zool. Soc. 1865, p. 56.

Station. Deep water.

Hab. St. Vincent's Gulf.

Fam. PYRAMIDELLIDÆ.

83. CINGULINA CIRGINATA?

Cingulina circinata, A. Adams, Ann. Mag. Nat. Hist. Dec. 1860.

Specimens from shell-sand seem to agree with the description of the above species, which was found by Mr. A. Adams in the China Seas.

84. *CINGULINA SPINA.

Turritella spina, Crosse et Fisch. Journ. de Conch. 1864, p. 347, pl. 3. f. 13, 14.

Hab. St. Vincent's Gulf, in shell-sand.

Fam. CONIDÆ.

85. CONUS (CHELYCONUS) ANEMONE.

Conus anemone, Lam. Anim. sans Vert. vii. p. 479.

Station. Under stones and in crevices of rocks at low spring tides.

Hab. Spencer's and St. Vincent's Gulfs.

A dwarf variety occurs plentifully at Salt Creek, Yorke's Peninsula.

86. CONUS (CHELYCONUS) NOVÆ-HOLLANDIÆ.

Conus novæ-hollandiæ, A. Adams, Proc. Zool. Soc. 1853, p. 119.

Station. Same as the preceding.

Hab. Rapid and Encounter Bays; Guichen Bay.

This species ranges from Swan River to Tasmania.

87. CONUS (STEPHANOCONUS) RUTILUS.

Conus rutilus, Menke, Moll. Nov. Holl. p. 57. no. 133.

Station. Under stones, deep water.

Hab. St. Vincent's Gulf. Rare.

Although this interesting little species is described by authors as

of a "uniform fiery red," I have occasionally met with specimens of a beautiful purple colour.

Fam. CYPRÆIDÆ.

88. ARICIA THERSITES.

Cypræa thersites, Gaskoin, Proc. Zool. Soc. 1848, p. 90.

Station. On clusters of zoophytes, at the depth of 2 or 3 fathoms, in sheltered places.

Hab. Salt Creek, Yorke's Peninsula.

This fine *Cypræa* is not only peculiar to South Australia, but extremely limited in its habitat, the above-named locality being the only place where it has hitherto been met with. Two or three specimens of a very beautiful jet-black variety have been found.

89. CYPRÆA ANGUSTATA.

Cypræa angustata, Gmelin, Wood's Cat. t. 17. f. 32.

Station. Deep water, and on rocky coasts.

Hab. Guichen Bay.

This is truly a Tasmanian species, not extending into the South-Australian gulfs, where several allied species have their habitat. It is larger and of a more rounded form than *C. comptoni*, and the base is white.

90. CYPRÆA COMPTONI.

Cypræa comptoni, Gray.

Station. On sandy muddy flats, from 2 to 4 fathoms.

Hab. Port Lincoln; St. Vincent's Gulf; Port Adelaide Creek.

The animal of *C. comptoni* is of a bright orange-colour, whilst that of *C. bicolor* of Gaskoin is of a pale lemon. The shell in many specimens is entirely of a dark purple colour; in others it is of a rich brown, sometimes faintly banded, with the margins of the base paler, and spotted.

91. CYPRÆA PIPERITA.

Cypræa piperita, Solander, MS.; Gray, Zool. Journ. i. p. 498.

Station. On sandy muddy flats, along with *C. comptoni*.

Hab. Port Lincoln.

This species is closely allied to *C. comptoni*, but may be distinguished by its more solid and gibbous form, smaller size, and having the orange flesh-tint of *C. bicolor*.

92. CYPRÆA BICOLOR.

Cypræa bicolor, Gaskoin, Proc. Zool. Soc. 1848, p. 91.

Station. Similar to the two preceding ones.

Hab. Kangaroo Island; Port Adelaide Creek.

This very pretty species is more cylindrical than either of its allies, and may easily be distinguished by its interrupted bands of flesh-colour, whilst the back of the shell is more or less spotted or reticulated throughout.

Fam. CANCELLARIIDÆ.

93. CANCELLARIA UNDULATA.

Cancellaria undulata, Sow. Proc. Zool. Soc. 1848, p. 136.

Station. Deep water.

Hab. Port Elliot, Encounter Bay.

This fine species is very closely allied to *C. granosa*, Sow., from New South Wales. It differs from the latter, however, in having a smaller spire and finer striæ.

94. CANCELLARIA SPIRATA.

Cancellaria spirata, Lam. Anim. sans Vert.; Sow. Thes. Conch. (*Cancellaria*), pl. 93. f. 22.

Cancellaria excavata, Sow.

Station. Deep water.

Hab. Encounter Bay.

This beautiful species I believe to be the true *C. spirata* of Lamarck. Mr. Sowerby's *C. excavata* (from South Australia also) I regard as synonymous. The specimens of the latter in Mr. Cuming's collection appear to be only dead and beach-worn examples of *C. spirata*.

Fam. CERITHIIDÆ.

95. BITTIUM GRANARIUM.

Cerithium granarium, Kiener, Icon. Coq. Viv. p. 72, pl. 19. f. 3.

Station. Under stones, low water.

Hab. St. Vincent's Gulf.

This species is abundant in Port Jackson, New South Wales.

95 a. BITTIUM TURRITELLA.

Cerithium turritella, Quoy, Voy. Astrol. iii. p. 131, pl. 55. f. 8.

Station. Low water, on the sands.

Hab. Yorke's Peninsula, and head of Spencer's Gulf.

96. *BITTIUM LAWLEYANUM.

Bittium lawleyanum, Crosse, Journ. Conch. 1863, p. 87, pl. 1. f. 4.

Station. Unknown.

Hab. Head of Spencer's Gulf.

A very closely allied species, which may prove to be only a variety of this, occurs in Port Phillip Harbour: I have found specimens of it on the beach near Melbourne. This shell has more the appearance of a little *Turritella* than a *Bittium*.

97. *POTAMIDES MONACHUS.

Cerithium monachus, Crosse et Fisch. Journ. de Conch. 1864, p. 347, pl. 3. f. 17, 18.

Station. 3 to 6 fathoms, on sandy mud.

Hab. Yorke's Peninsula; Adelaide Creek.

On the beach at St. Kilda, near Melbourne, I met with numerous dead specimens. This aberrant form of *Cerithiidæ* seems to ap-

proach nearer to the genus *Potamides* than any other. When in a living state, the ribs have an epidermal fringe of hairs, like *Trichotropis*.

Fam. CERITHIOPSIDÆ.

98. *TRIPHORIS PFEIFFERI.

Triphoris pfeifferi, Crosse, Journ. de Conch. 1865, p. 47, pl. 1. f. 14, 15.

Station. Deep water.

Hab. St. Vincent's Gulf.

99. *TRIPHORIS ANGASI.

Triphoris angasi, Crosse, Journ. de Conch. 1865, p. 46, pl. 1. f. 12, 13.

Station. Deep water.

Hab. St. Vincent's Gulf.

100. TRIPHORIS FESTIVUS.

Triphoris festivus, A. Adams, Proc. Zool. Soc. 1851, p. 278.

Station. Deep water.

Hab. St. Vincent's Gulf; Port Lincoln.

Fam. LITTORINIDÆ.

101. LITTORINA UNIFASCIATA.

Littorina unifasciata, Gray.

Station. On stones between tide-marks.

Hab. Common on all the Australian coasts, from Sydney to Swan River.

102. LITTORINA PHILIPPII.

Littorina philippii, Carp. Cat. Mazatlan Shells, no. 398.

Station. On stones and mangrove-trees.

Hab. Port Adelaide Creek.

This species is identical with Dr. P. P. Carpenter's shell from Mazatlan.

103. LITTORINA UNDULATA.

Littorina undulata, Gray, Zool. Beechey's Voy. p. 140.

Station. On stones between tide-marks.

Hab. Guichen Bay, and Yorke's Peninsula. It also occurs at King George's Sound.

104. RISELLA MELANOSTOMA.

Trochus melanostomus, Gmel. 1789, p. 3581. no. 90.

Risella melanostoma, Crosse, Journ. de Conch. 1864, pl. 11. f. 1.

Station. On stones between tide-marks.

Hab. South Australia.

Common in Port Phillip; on rocks at St. Kilda.

105. *RISELLA AURATA*, var.*Trochus auratus*, Quoy, Voy. de l'Astrol. iii. p. 276, pl. 62. f. 19.*Risella lutea*, H. & A. Adams, Gen. Moll. pl. 33. f. 5.*Station.* On stones between tide-marks.*Hab.* Holdfast Bay; Aldinga Bay. Common.106. *RISELLA PLANA*.*Trochus planus*, Quoy, Voy. de l'Astrol. p. 274, pl. 62. f. 13, 14.*Station.* On stones just below high-water mark.*Hab.* All parts of the coast.

This species has a wide range. It is found abundantly on the coast of New South Wales.

107. **RISELLA BRUNI*.*Risella bruni*, Crosse, Journ. de Conch. 1864, p. 239, pl. 11. f. 3.

Station. Adhering to small flat fragments of rock and coral uncovered by the tide.

Hab. Head of Spencer's Gulf.

Fam. PLANAXIDÆ.

The only species of this family hitherto met with in South Australia belong to Mr. A. Adams's genera *Alaba* and *Diala*, which are nearly related to *Litiopa*.

108. **ALABA PULCHRA*.*Alaba pulchra*, A. Adams, Ann. Nat. Hist. Oct. 1862, p. 296.*Station.* Amongst seaweed and *Zostera*, in 2 fathoms' water.

Hab. Port Adelaide, amongst the seaweed brought up in shrimp-nets.

109. *ALABA MONILE*.*Alaba monile*, A. Adams, Ann. Nat. Hist. Oct. 1862, p. 296.*Station.* Unknown.*Hab.* Port Lincoln, in shell-sand.110. **ALABA PAGODULA*.*Alaba pagodula*, A. Adams, Ann. Nat. Hist. Oct. 1862, p. 297.*Station.* Unknown.*Hab.* St. Vincent's Gulf, in shell-sand.111. **DIALA LAUTA*.*Diala lauta*, A. Adams, Ann. Nat. Hist. Oct. 1862, p. 298.*Station.* Amongst seaweed, in 2 fathoms.

Hab. St. Vincent's Gulf. Often in shell-sand at the head of Spencer's Gulf, along with *Truncatella* and *Bittium* in vast numbers.

112. *DIALA SUTURALIS*.*Diala suturalis*, A. Adams, Ann. Nat. Hist. Oct. 1862, p. 298.*Station.* Unknown.*Hab.* St. Vincent's Gulf, in shell-sand.

113. *DIALA RUFILABRIS.*

Diala rufilabris, A. Adams, Ann. Nat. Hist. Oct. 1862, p. 298.

Station. Unknown.

Hab. Port Lincoln.

Fam. RISSOIDÆ.

114. *RISSOINA D'ORBIGNYI?*

Rissoina d'orbignyi, A. Adams, Proc. Zool. Soc. 1851, p. 265.

This species, which occurs in shell-sand, appears to be identical with *R. d'orbignyi* of A. Adams; but all the specimens are too much worn to be identified with certainty.

Fam. TURRITELLIDÆ.

115. *TORCULA CLATHRATA.*

Turritella clathrata, Kiener, Icon. Coq. Viv. p. 38, pl. 14. f. 1.

Station. Deep water.

Hab. St. Vincent's and Spencer's Gulfs. Found also in Tasmania; and Twofold Bay, New South Wales.

Mr. Reeve gives a figure of this species from a specimen in the Metcalfe collection, "habitat unknown" (Conch. Icon., *Turritella*, f. 37).

Fam. VERMETIDÆ.

116. *TENAGODA AUSTRALIS.*

Siliquaria australis, Quoy et Gaim. Voy. de l'Astrol.

Station. Gregarious, imbedded in the roots of *Fuci*.

Hab. St. Vincent's Gulf.

117. *TENAGODA TAHITENSIS.*

Tenagoda tahitensis, Mörch.

Station. Deep water.

Hab. St. Vincent's Gulf.

117a. *THYLACODES SULCATUS.*

Thylacodes sulcatus, Mörch, Proc. Zool. Soc. 1862, p. 68.

Serpula sulcata, Lam. Anim. sans Vert. 1818, v. p. 367.

Vermetus novæ-hollandiæ, Rouss.; Chenu, Ill. pl. 1. f. 4.

Station. On *Pinnæ*.

Hab. Head of Spencer's Gulf.

Fam. CALYPTREIDÆ.

118. **CRYPTA (IANACHUS) IMMERSA.*

Crepidula immersa, Angas, Proc. Zool. Soc. 1865, p. 57.

Station. Attached to dead shells in deep water.

Hab. St. Vincent's and Spencer's Gulfs.

Fam. CAPULIDÆ.

119. CAPULUS DANIELI.

Capulus danieli, Crosse, Revue et Mag. de Zool. 1858, pl. 3. f. 2.

Station. Adhering to Pectens and other shells in deep water.

Hab. St. Vincent's Gulf; Port Lincoln.

This beautifully coloured species appears to be identical with the one from New Caledonia, described and figured by M. Crosse in the 'Revue et Mag. de Zool.' At Port Lincoln there occurs a pure-white variety.

120. CAPULUS SUBFUSCUS.

Capulus subfuscus, Gray, MS.; Brit. Mus. Coll.

Station. Deep water.

Hab. St. Vincent's Gulf.

121. COCHLOLEPAS FOLIACEA.

Hipponyx foliacea, Quoy, Voy. de l'Astrol. iii. pl. 72. f. 41-45.

Station. On stones, below tide-mark.

Hab. St. Vincent's Gulf.

122. AMALTHEA CONICA.

Amalthea conica, Schum.

Station. Parasitic on *Fasciolaria*, *Fusus*, and *Haliotis excavata*.

Hab. Spencer's and St. Vincent's Gulfs.

This shell is very variable both in form and sculpture. The *Amalthea australis* of Quoy is *probably* the same species.

Fam. NERITIDÆ.

123. NERITA (THELIOSTYLA) ATRATA.

Nerita atrata, Chem. Conch. v. pl. 190. f. 1954, 1955.

N. punctulata, Quoy.

Station. On rocks between tide-marks.

Hab. All parts of the coast.

This black species is abundant on all parts of the southern coast of Australia, including Tasmania and New Zealand.

Fam. TROCHIDÆ.

This family is better represented in South Australia than any other, as far as the number of species is concerned. The beautiful genus *Eutropia* (Pheasant-Shells) has its metropolis on these shores, all the large species being peculiar to extra-tropical Australia. The genera *Elenchus*, *Thalotia*, *Clanculus*, and *Trochocochlea* are also well represented, being characteristic southern forms.

124. EUTROPIA TRITONIS.

Buccinum tritonis, Chemnitz.

B. australe, Gmelin, Linn. Syst. Nat. p. 3490.

Phasianella bulimoides, Lam.

P. varia, Encyc. Méthod. pl. 449. f. 1.

P. picta, De Blainville.

P. australis, Deshayes.

Station. On sandy bottoms, amongst the vast meadows of *Zostera* that fringe the Laminarian zone.

Hab. St. Vincent's and Spencer's Gulfs.

This is the largest species known, and its variations of painting, in pattern and colour, are endless. Mr. Reeve's *P. venusta* is, I am pretty certain, only an ordinary variety of *Eutropia tritonis*. The species ranges from Swan River eastward to Port Phillip and Western Port; but in St. Vincent's Gulf, where it is very abundant, it appears to attain its extreme development, both as regards size and variety of markings. When the living shell is first taken from the water, nothing can exceed the depth and brilliancy of its colours; but after the animal is removed, and the shells are exposed to the air, they fade rapidly—more so, indeed, than those of any other mollusk with which I am acquainted. Although hundreds of bushels of these shells are cast on shore after a gale of wind, and many of them contain living animals, it is difficult to meet with a single perfect specimen, the delicate outer lip being generally fractured.

125. EUTROPIA SANGUINEA.

Phasianella sanguinea, Reeve, Conch. Icon. pl. 3. f. 3.

Station. Deep water.

Hab. Encounter Bay, Kangaroo Island, and Guichen Bay.

126. EUTROPIA ZEBRA.

Phasianella zebra, Gray, MS. in Brit. Mus.; Reeve, Conch. Icon. pl. 3. f. 4.

Station. Deep water.

Hab. Rapid Bay. Rare.

127. EUTROPIA VENOSA.

Phasianella venosa, Reeve, Conch. Icon. pl. 3. f. 5.

Station. Deep water.

Hab. Port Elliot, Encounter Bay.

A fine, solid, characteristic species, with the last whorl much inflated. Rare.

128. EUTROPIA VENTRICOSA.

Phasianella ventricosa, Quoy et Gaim. Voy. de l'Astrol. pl. 59. f. 8, 9.

Station. Deep water.

Hab. Encounter Bay; Guichen Bay. Rare.

129. EUTROPIA RETICULATA.

Phasianella reticulata, Reeve, Conch. Icon. pl. 3. f. 7.

Station. Deep water.

Hab. St. Vincent's Gulf.

I obtained only one specimen of this shell, which entirely agrees with Mr. Reeve's *P. reticulata*.

130. *EUTROPIA NIVOSA*, var.

Phasianella nivosa, Reeve, Conch. Icon. pl. 4. f. 8.

Station. Deep water.

Hab. Aldinga Bay. Rare.

131. **EUTROPIA ANGASI*.

Phasianella angasi, Crosse, Journ. de Conch. 1864, p. 344, pl. 13. f. 5.

Station. Deep water.

Hab. Port Elliot. Very rare.

132. *LUNELLA UNDULATA*.

Turbo undulatus, Chemn. Conch. Cab. x. pl. 169. f. 1640, 1641.

Station. Amongst rocks at low tides.

Hab. On rocky coasts throughout the colony.

Generally distributed throughout extra-tropical Australia, from Swan River to New South Wales; abundant in Tasmania.

133. *SENECTUS CIRCULARIS*.

Turbo circularis, Reeve, Conch. Icon. pl. 10. f. 46.

Station. Deep water.

Hab. St. Vincent's Gulf. Very rare.

134. *NINELLA STRAMINEA*.

Helix stramineus, Martyn, U. C. t. 71.

Turbo torquatus, Gmel. Syst. Nat. p. 3597.

Turbo lamellosus, Brod. Zool. Journ. v. p. 331.

Station. Rocks at low water.

Hab. General on rugged coasts.

This species ranges all along the southern coast of Australia. The typical form is abundant in New South Wales and New Zealand; whilst the specimens from South Australia belong to the sulcate variety (*T. lamellosus*, Brod.). The animal of this species is used as an article of food by the New Zealanders and the aborigines of New South Wales.

135. *UVANILLA SQUAMIFERA*.

Trochus squamiferus, Koch, in Phil. Abbild. und Besch. Conch. pl. 4. f. 9.

Trochus fimbriatus, var. *philippi*.

Station. Dredged in 2 to 3 fathoms.

Hab. Port Adelaide Creek.

This is a good species, quite distinct from *T. fimbriatus* and *T. urvillei* of Philippi; the latter is only the young state of *T. tentorii-formis*, Jonas.

136. LIOTIA AUSTRALIS.

Delphinula australis, Kiener, Icon. pl. 4. f. 7.

Station. Deep water.

Hab. St. Vincent's Gulf; also Tasmania.

The type specimen was collected by Baudin, and is in the Mus. Royal, Paris.

137. LIOTIA SIDEREA.

Delphinula siderea, Reeve, Conch. Icon. pl. 5. f. 23.

Station. Deep water.

Hab. St. Vincent's Gulf.

138. *LIOTIA ANGASI.

Liotia angasi, Crosse, Journ. de Conch. 1864, p. 343, pl. 13. f. 4.

Station. Deep water.

Hab. St. Vincent's Gulf; also Port Jackson, New South Wales.

139. CLANCULUS UNDATUS.

Trochus undatus, Lam. Encyc. Méth. pl. 447. f. 3.

Station. Deep water.

Hab. Rivoli Bay.

This is by far the largest species of *Clanculus* occurring in South Australia.

140. CLANCULUS CONSPERSUS.

Clanculus conspersus, A. Adams, Proc. Zool. Soc. 1851, p. 163.

Station. Under stones beyond tide-marks.

Hab. St. Vincent's Gulf; Tasmania.

141. *CLANCULUS YATESI.

Clanculus yatesi, Crosse, Journ. de Conch. 1863, p. 379, pl. 13. f. 1.

Station. Same as the preceding species.

Hab. St. Vincent's Gulf.

142. CLANCULUS VARIEGATUS.

Clanculus variegatus, A. Adams, Proc. Zool. Soc. 1851, p. 160.

Station. Under rocks and stones at low tide.

Hab. Guichen Bay; Port Elliot.

Mr. Cuming has this species from the Philippines.

143. CLANCULUS GIBBOSUS.

Clanculus gibbosus, A. Adams, Proc. Zool. Soc. 1851, p. 162.

Station. Under rocks and stones, low tides.

Hab. Guichen Bay (large specimens); Port Jackson (small variety); New Ireland (*Jukes*).

144. CLANCULUS RUBENS.

Clanculus rubens, A. Adams.

Station. Stones beyond tide-marks.

Hab. St. Vincent's Gulf.

This pretty little red species occurs somewhat plentifully on the shores of the gulf, in a dead state.

145. *CLANCULUS NODO-LIRATUS.*

Clanculus nodo-liratus, A. Adams, Proc. Zool. Soc. 1851, p. 163.

Station. Same as preceding.

Hab. St. Vincent's Gulf; Port Phillip.

146. *CLANCULUS MACULOSUS.*

Clanculus maculosus, A. Adams, Proc. Zool. Soc. 1851, p. 160.

Station. Same as preceding.

Hab. St. Vincent's Gulf. Rare.

147. *EUCHELUS BACCATUS.*

Monodonta baccata, Menke, Moll. Nov. Holl. p. 14. no. 51.

Station. Under stones, low water.

Hab. St. Vincent's and Spencer's Gulfs.

148. *THALOTIA CONICA.*

Thalotia conica, Gray.

Station. Feeding amongst the *Zostera*, beyond tide-marks, in great abundance, on sandy shores.

Hab. St. Vincent's Gulf.

149. **THALOTIA ABNORMIS.*

Trochus abnormis, Crosse, Journ. de Conch. 1864, p. 341, pl. 13. f. 2.

Station. Amongst the *Zostera*.

Hab. St. Vincent's Gulf.

150. *THALOTIA PICTA.*

Trochus pictus, Wood, Ind. Test. Suppl. pl. 5. f. 28.

Station. Amongst rocks beyond tide-marks.

Hab. St. Vincent's Gulf.

151. *THALOTIA PULCHERRIMA.*

Trochus pulcherrimus, Wood, Ind. Test. pl. 6. f. 45.

Station. Deep water.

Hab. Holdfast Bay; Aldinga Bay.

152. **THALOTIA RAMBURI.*

Trochus ramburi, Crosse, Journ. de Conch. 1864, p. 342, pl. 13. f. 3.

Station. Amongst rocks beyond tide-marks.

Hab. Middleton, near Port Elliot, Encounter Bay.

This lovely species, remarkable for its deep coral-red colour, marked with white longitudinal flames, occurs pretty freely at the above-named locality.

153. *ZIZIPHINUS ARMILLATUS*.

Trochus armillatus, Wood, Ind. Test. Suppl. pl. 9. f. 5.

Station. Deep water.

Hab. Encounter and Guichen Bays.

This fine species is also found in Tasmania.

154. *ZIZIPHINUS CHLOROSTOMUS*.

Trochus chlorostomus, Menke, Moll. Nov. Holl. p. 17.

Station. Deep water.

Hab. Salt Creek and Troubridge Shoal, east coast of Yorke's Peninsula; Spencer's Gulf. Rare.

A beautifully sculptured and delicately coloured species, differing from the typical form in having the outer lip somewhat thickened, and strongly crenulated or grooved within, as in *Thalotia* and *Elenchus*. This species ranges westward towards Swan River.

155. *ZIZIPHINUS NOBILIS*.

Trochus nobilis, Philippi, Küster, Conch. Cab. p. 86, pl. 15. f. 6.

Station. Probably deep water.

Hab. St. Vincent's Gulf. Very rare.

I obtained a single specimen only of this very charming species on the beach at Aldinga Bay. It is also found at Swan River, on the west coast of New Holland.

156. **ZIZIPHINUS BLANDIANUS*.

Trochus blandianus, Crosse, Journ. de Conch. 1864, p. 339, pl. 13. f. 1.

Station. Probably deep water.

Hab. St. Vincent's Gulf. Very rare.

A very interesting species (somewhat similar in character to *Z. chlorostomus*), of which a single example only has been found.

157. **CANTHIRIDUS DECORATUS*.

Canthiridus decoratus, Ad. & Ang. Proc. Zool. Soc. 1864, p. 37.

Station. Deep water.

Hab. Yorke's Peninsula. Very rare.

158. *ELENCHUS BADIUS*.

Trochus badius, Wood, Ind. Test. Suppl. pl. 6. f. 46.

Station. Deep water.

Hab. Encounter Bay; also Port Phillip and Tasmania.

159. *ELENCHUS LINEATUS*.

Monodonta lineata, Lam. Hist. Anim. sans Vert. vii. p. 38.

Station. Deep water.

Hab. Aldinga Bay.

Some of the specimens of this species from Tasmania are beautifully variegated.